MegaDome® 2
Installation Manual

Arecont Vision

megapixel technology...
beyond imagination

PSIA ONVIF

MegaDome® 2 Installation Manual

Inside the box:

A. Arecont Vision MegaDome® 2 camera
B. Mounting template
C. Rubber gasket (preinstall on bottom of camera)
D. AC & DC power cable
E. I/O cable
F. Installation manual
G. CD with AV100 software and user manuals (License Key Required for Recording)
H. Pack of four (4) wood screws and four (4) dry wall anchors
I. Security L-Key
J. One double-sided hex key
K. One single-sided hex key

Not included but needed:

- #1 Phillips head screwdriver
- #2 Phillips head screwdriver

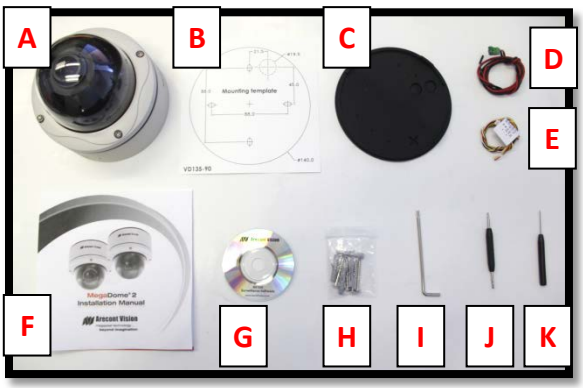

Image 1

Mounting the Camera:

1. Remove the camera and hardware from the box.

2. Using the mounting template, prepare the mounting surface for camera installation. *NOTE: the 19.5mm diameter hole on the Mounting template is where the Ethernet cable will be exiting the MegaDome®, align accordingly. If using the side conduit hole, please see **step 4** following.*

3. Using Security L-key, loosen the four (4) screws securing the dome cover **(Image 2)**. Remove the vandal resistant dome cover. *NOTE: Do not remove the screws from the dome cover.*

Image 2

4. If you are using the side conduit opening, remove the conduit plug by first removing the socket set screw using the provided double-sided hex key **(Image 3)**.

Image 3

Note: Make sure that you install the rubber gasket on the bottom of the camera to form a weather tight seal with the mount surface.

5. Run the Ethernet cable through the gasket and the hole on the bottom of the camera **(Image 4)** or run the cable through the side conduit and plug it into the RJ45 port. *NOTE: If the camera will be powered via PoE, please skip to **step 6**.*

6. If the camera will be powered by an AC or DC power supply, run the supplied power cable through the gasket and the hole on the bottom of the camera or run the cable through the side conduit and connect it to its respective connector inside the camera **(Image 3)**.

NOTE: Make sure that your installation of wires complies with Electrical Code of the local government where the camera is installed and that no bare wires are exposed.

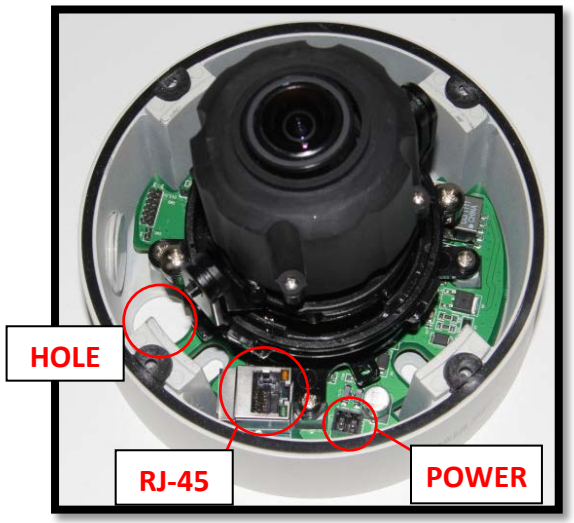

Image 4

7. Align the holes in the camera with the prepared holes on the mounting surface. Attach the camera to the mounting surface with the wood screws or any optional hardware suitable for the mounting surface.

8. Apply silicon on the bottom of the camera to form a weather tight seal with the mount surface (if necessary).

Adjusting the Tilt, Pan, Z-Axis (yaw):

9. To adjust the tilt, use a #1 Phillips screwdriver to loosen the screw on the side of the plastic lens bracket 1/4 turn **(Image 5)**. *CAUTION: Do not remove the screw!*

10. Adjust lens tilt as required and tighten the screw.

11. To adjust the pan, use a #2 Phillips screwdriver to loosen the screw as shown in **Image 5**.

    CAUTION: Do not remove the screw.

12. Adjust the pan as required and tighten the screw.

13. To adjust the Z-Axis, or yaw, for vertical wall mounting, loosen the set screw as shown in **Image 5**.

    NOTE: There are two set screws on opposite sides; both need to be loosened.

    CAUTION: Do not remove the screw.

14. Adjust the Z-Axis as required and tighten the set screws.

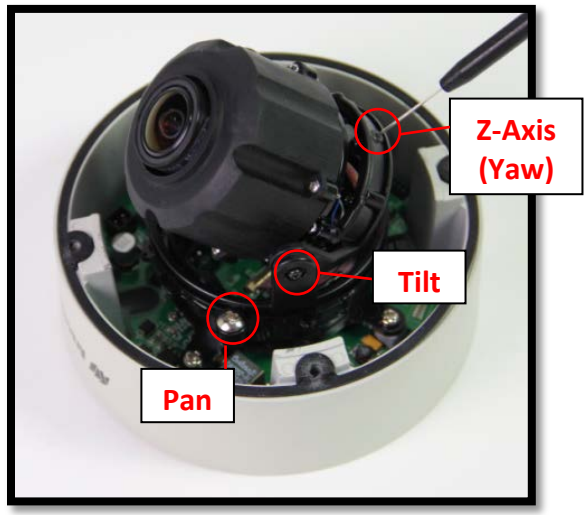

Image 5

Securing the Vandal Dome Cover:

15. Remove the protective film from the camera dome.

    NOTE: Be careful not to scratch the vandal dome cover.

16. Adjust black liner position to avoid blocking IR light (if applicable) or the lens as shown in **Image 6-1 and 6-2**.

17. Secure the vandal dome cover to the camera using the provided security L-Key.

Image 6-1

Image 6-2

Camera Installation:

18. Install the AV100 application manager Software as shown in **Image 7** (found on the CD).

19. Run the AV100 application manager by double clicking on the icon as shown in **Image 8** (found on your desktop).

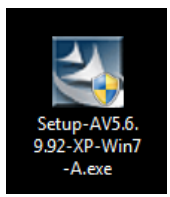

Image 7

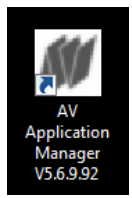

Image 8

20. Select “Run” next to “Setup Cameras” from the AV100 application manager as shown in **Image 9** and wait for “Arecont Vision Camera Installer” window to appear as shown in **Image 10**.

Image 9

21. Click “Mode” tab to select desired install mode on Arecont Vision Camera Installer as shown in **Image 10**.

NOTE 1: Basic Mode (default setting): software will automatically discover and change / assign IP address to match PC subnet.

NOTE 2: Advanced Mode: software will automatically discover but allow manual update of the IP address. See “AV100 Installation Manual” (found on the CD) for details on Advanced Mode.

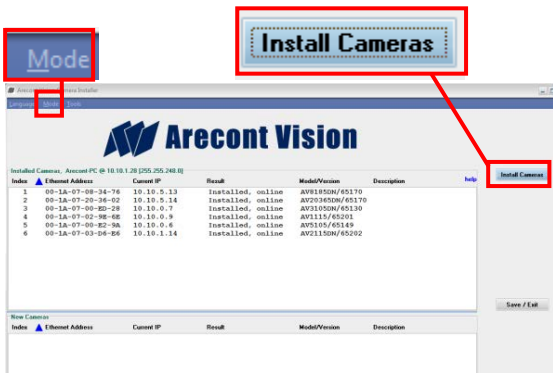

Image 10

22. Select “Install Cameras” on Arecont Vision Camera Installer as shown in **Image 10**.

23. Confirm all cameras connected to the network switch appear in the upper window.

24. Repeat **Step 22** if all of the cameras do not appear in the upper window.

CAUTION: If the software does not find a camera, the software utility may be blocked by the anti-virus or Windows® firewall. Before turning them off, please consult your IT manager.

*NOTE : Double click the camera model on the Camera Installer as shown in **Image 11** to access the camera web interface. See “AV Camera Web Page User Manual” (found on the CD) for details on the web interface.*

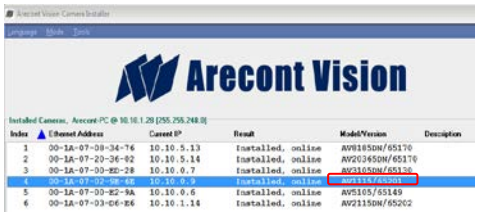

Image 11

25. When all cameras appear, select “Save/Exit.” The AV100 application will appear.

26. From the “AV100 Application Manager” menu, select “Run” to view live images.

NOTE: See the “AV100 Installation Manual” (found on CD) for details on camera configurations.

Adjusting the Remote Focus and Zoom:

27. To adjust focus or zoom, open the camera web interface and click the “Focus” tab as shown in **image 12**.

28. To manually adjust zoom, click the “+20”, “+5”, “+1”, “-20”, “-5”, “-1” buttons to zoom in and out, adjusting the field of view.

    NOTE 1: “+20” zooms in 20x further than “+1”

    *NOTE 2: If the “Enable Auto Focus after zoom” option is checked as shown in **image 12**, the focus will automatically be adjusted when zoom is changed.*

29. Set up a focus area (if necessary) by drawing a rectangle with the mouse (by left-clicking and dragging the mouse to a desired zoom size) shown in **Image 13**.

30. To automatically adjust focus, choose “Full-range Focusing” or “Fast Focusing” depending on the image clarity as shown in **image 13**.

    If the image is completely out of focus, choose “Full-range Focusing” to scan the full focus range and find the best focus position.

    If the image is slightly of out of focus, choose “Fast Focusing” to fine tune and quickly get a precise focus position to save time.

31. To manually focus, click the “+20”, “+5”, “+1”, “-20”, “-5”, “-1” buttons to fine tune the focus.

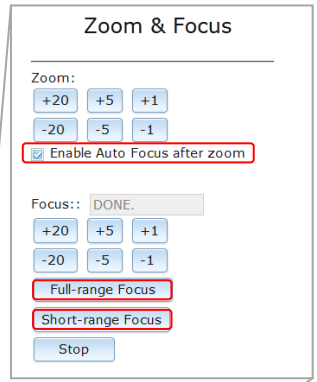

Image 12

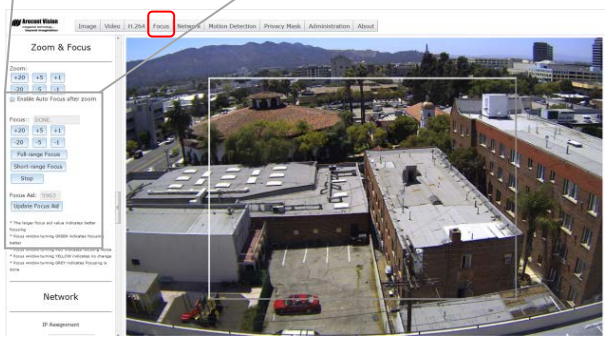

Image 13

Important Note

How to correctly install MegaDome® 2 on a ROUGH surface wall

Correct Installation:

Please install the MegaDome® 2 with wall mount, (MD-WMT2) and junction box adapter (SV-JBA) to avoid water leakage risk on ROUGH surface wall surface as shown in **Image 14**.

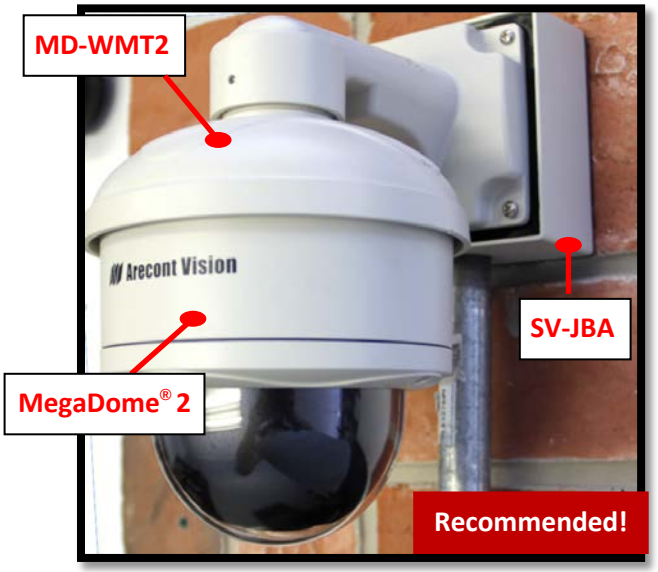

Image 14

Note: Please see how to install MD-WMT2 on page 9 and SV-JBA on page 10.

Inappropriate Installation:

Attaching the MegaDome® 2 directly onto a ROUGH wall surface may result in water leakage see **Image 15**!

Image 15

NOTE: Water damage from improper installation is not covered by the warranty!

MegaDome® 2 Accessory (Sold Separately)

Wall Mount (MD-WMT2) Installation Instructions

Caution:

MD-WMT2 only fits with SV-JBA and SV-EBA but not with the older MD-JBA and MD-EBA!

Inside the box:

A. Wall mount
B. Top shield
C. Mounting template
D. One double-sided hex key
E. Pack of four (4) machine screws
F. Pack of four (4) wood screws and four (4) dry wall anchors

Not included but needed:

- #2 Phillips head screwdriver

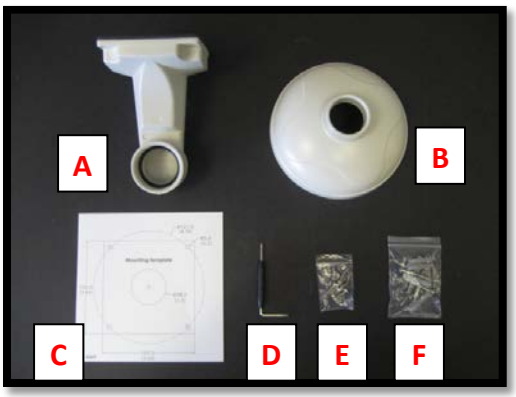

Image 16

1. Remove the wall mount and hardware from the box.

Image 17

2. Using the mounting template, prepare the mounting surface.

3. Attach wall mount to the wall using drywall screws or any optional hardware suitable for the mounting surface.

3. Install top shield on the wall mount as shown in **image 17**.

4. Fasten the socket set screw using the double-side hex key (D).

5. Run the Ethernet cable and outside power cable (if necessary) through the wall mount.

6. For installation of the camera, please reference "**Mounting the Camera.**"

MegaDome® 2 Accessory (Sold Separately)

Junction Box Adapter (SV-JBA) for MD-WMT2 Installation Instruction

Caution:

SV-JBA should always be used in conjunction with a wall mount, MD-WMT2, for outdoor installation.

SV-JBA will only fit with the MD-WMT2 wall mount. It does not fit the camera dome or older wall mount MD-CMT!

Inside the box:

A. Junction Box Adapter
B. Pack of four (4) machine screws
C. One double-sided hex key
D. Pack of four (4) wood screws and four (4) dry wall anchors
E. Mounting template

Not included but needed:

- #2 Phillips head screwdriver
- Wall Mount, MD-WMT
- ¾" NPT Conduit (if necessary)

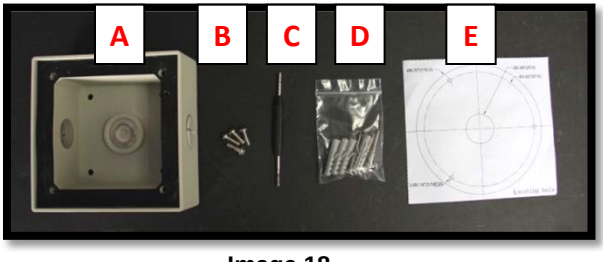

Image 18

1. Remove junction box adapter and hardware from the box

Image 19

2. Remove the conduit plug by first removing the socket set screw using the provided hex key (C).

3. Attach the junction box adapter to the wall using drywall screws or any optional hardware suitable for the mounting surface.

4. Attach the wall mount to junction box adapter then attach cap to the wall mount as shown in **Image 19**.

5. Connect ¾" NPT Conduit to the junction box adapter.

6. Run Ethernet cable and outside power cable (if necessary) through the Junction Box Adapter and Wall Mount.

7. For installation of the camera, please reference "**Mounting the Camera.**"

MegaDome® 2 Accessory (Sold Separately)

Pendant Mount (MD-CMT) Installation Instructions

Inside the box:

A. Top shield
B. Pendant Mount
C. Mounting template
D. Pack of four (4) small machine screws
E. Pack of four (4) machine screws
F. Pack of four (4) wood screws and four (4) dry wall anchors
G. One double-sided hex key
H. Small square rubber gasket
I. Large round rubber gasket

Not included but needed:

J. #2 Phillips head screwdriver

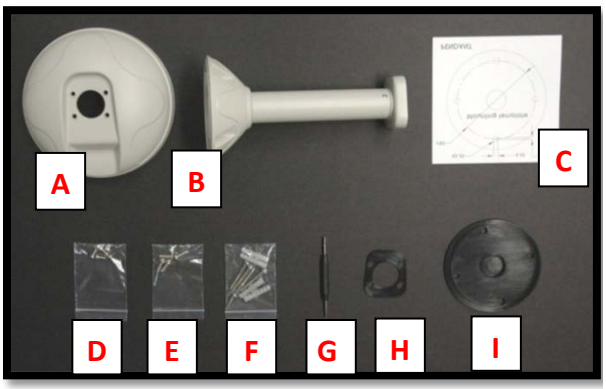

Image 20

1. Remove Pendant Mount and hardware from the box.

Image 21

Image 22

2. Using the mounting template, prepare the mounting surface for camera installation.

3. Place small gasket onto pendant mount shown in **image 12.**

4. Attach the top shield to the pendant as shown in **Image 22** using four machine screws (E) provided.

5. Install the large round rubber gasket onto the pendant as shown in **image 22**. Be sure to align the holes appropriately.

6. Run the Ethernet cable and outside power cable (if necessary) through the Pendant.

7. Attach the pendant to the ceiling using the four wood screws provided or any optional hardware suitable for the mounting surface.

8. For installation of the camera, please reference "**Mounting the Camera.**"

MegaDome® 2 Accessory (Sold Separately)

Wall Mount Cap (MD-CAP) Installation Instructions

Inside the box:

A. Wall Mount Cap (MD-CAP)
B. Pack of four (4) machine screws

Not included but needed:

- 1½" NPT pipe nipple
- 1½" NPT coupling
- 1½" NPT flange
- #2 Phillips head screwdriver

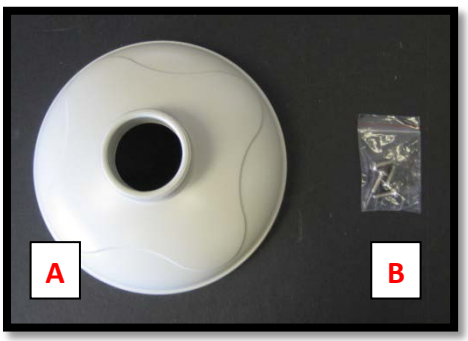

Image 23

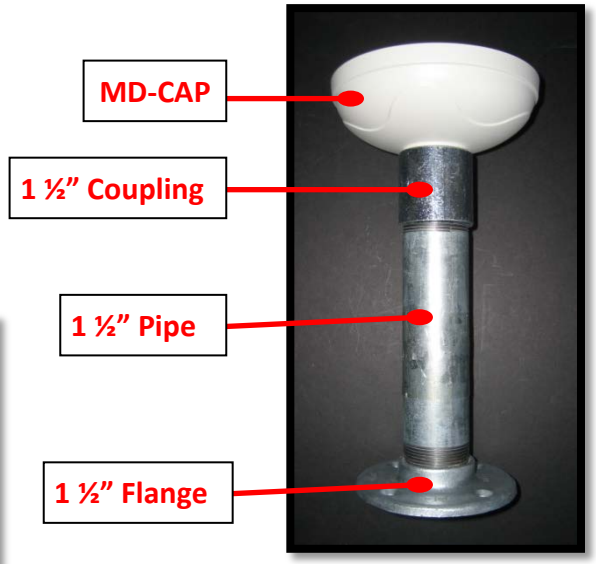

Image 24

1. Remove the wall mount cap from the box.
2. Assemble the wall mount cap, 1½" coupling, 1½" pipe nipple and 1½" flange as a pendant Mount shown in **image 24**.
3. Run the Ethernet cable and outside power cable (if necessary) through the pendant.
4. Attach the pendant to the ceiling using four wood screws or any optional hardware suitable for the mounting surface
5. For installation of the camera, please reference "**Mounting the Camera.**"

MegaDome® 2 Accessory (Sold Separately)

Flush Mount Adapter (MD-FMA) Installation Instructions

Inside the box:

A. white trim ring
B. Flush mount adapter
C. Mounting template
D. Pack of four (4) machine screws and one (1) eyelet

Not included but needed:

- #2 Phillips head screwdriver

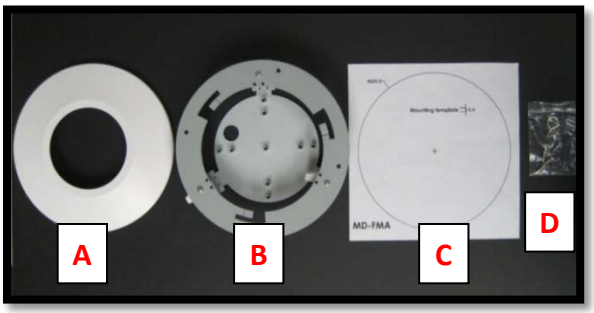

Image 25

1. Remove the flush mount adapter, trim ring and hardware from the box

2. Attach the dome to the flush mount adapter as shown in **Image 26**. Please reference "**Mounting the Camera,**" if needed.

3. Using the mounting template, cut a hole in surface for mounting.

4. Insert the flush mount adapter into the hole.

5. Tighten the "lever screws" until the flush mount adapter is snuggly installed, as shown in **Image 26**. The "Support Arm" will ride down the screw to compress the mounting surface**.** *NOTE: Do not over-torque the lever screws.*

6. Attach the trim ring to the flush mount adapter by rotating clockwise as show in **Image 27.**

Image 26

Image 27

MegaDome® 2 Accessory (Sold Separately)

Electrical Box Adapter (SV-EBA) Installation Instructions

Caution:

SV-EBA fits with MD-WMT2 but not fit with MegaDome®2 and MD-CMT!

Inside the box: (Accessory Sold Separately)

A. Electrical Box Adapter
B. Pack of four (4) machine screws

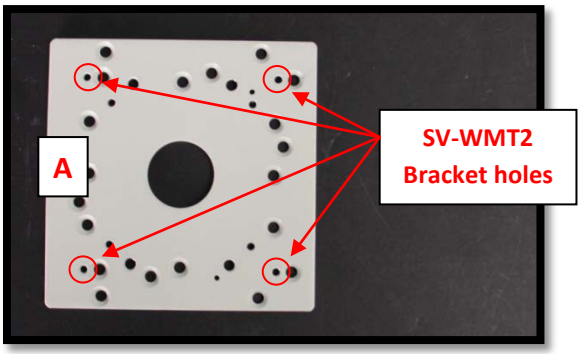

Image 28

Not included but needed:

- #2 Phillips head screwdriver
- Common electrical box, such as single gang box, double gang box, or square electrical boxes shown in **Image 29-1~4**.

1. Remove the electrical box adapter and hardware from the box.

2. Attach the wall mount bracket, SV-WMT2, to the electrical box adapter.

3. Attach electrical box adapter to electrical box.

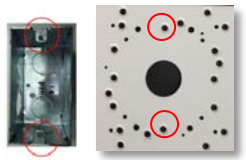

Image 29-1 Single gang box

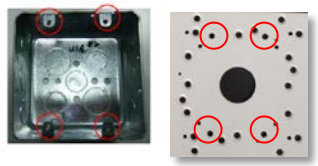

Image 29-2 Double gang box

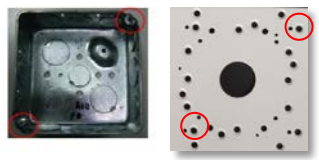

Image 29-3 Square box

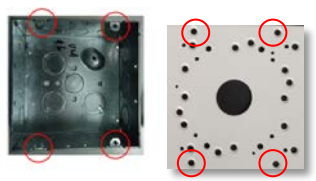

Image 29-4 Square box

MegaDome® 2 Accessory (Sold Separately)

Pole Mount Adapter (MD-PMA) Installation Instructions

Inside the box:

A. Pole mount adapter
B. 2x compression fittings
C. 2x small steel straps
D. 2x large steel straps
E. Pack of four (4) machine screws

Not included but needed:

- #2 Phillips head screwdriver
- MegaDome® wall mount, MD-WMT2

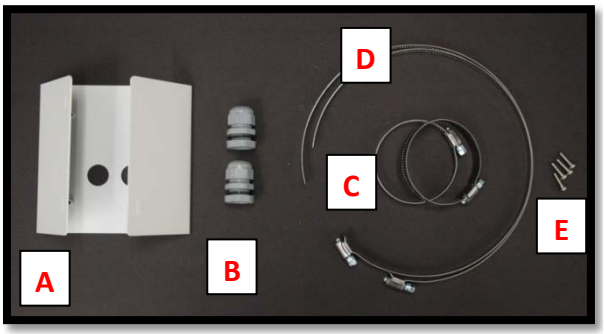

Image 30

1. Remove the pole mount adapter, compression fittings, steel straps and hardware from the box.

2. Install the compression fittings to pole mount adapter as shown in **Image 31**.

3. Attach MegaDome® wall mount MD-WMT2 to pole mount adapter as shown in **Image 32**.

4. Run the Ethernet cable and outside power cable (if necessary) through the compression fittings and MegaDome® wall mount, MD-WMT2.

5. Use the supplied two steel straps to attach the Pole Mount Adapter to the pole and tighten the compression screws as shown in **Image 33**.

6. Attach the dome to wall mount adapter. Please reference "**Mounting the Camera,**" if needed.

7. Tighten the compression fittings to seal the wiring holes.

Image 31

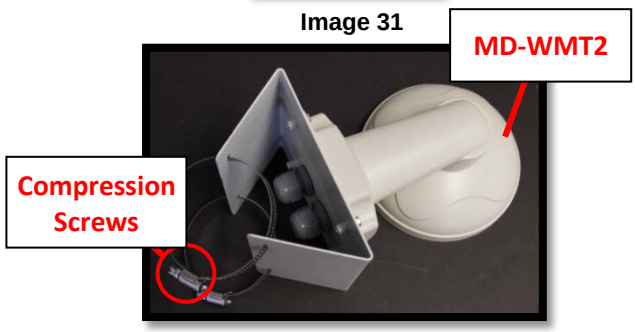

Image 32

MegaDome® 2 Accessory (Sold Separately)

Corner Mount Adapter (MD-CRMA) Installation Instructions

Inside the box:

A. Corner mount adapter
B. 2x compression fittings
C. Pack of four (4) machine screws
D. 2x Packs of four (4) wood screws and four (4) dry wall anchors

Not included but needed:

- #2 Phillips head screwdriver
- MegaDome® wall mount, MD-WMT2

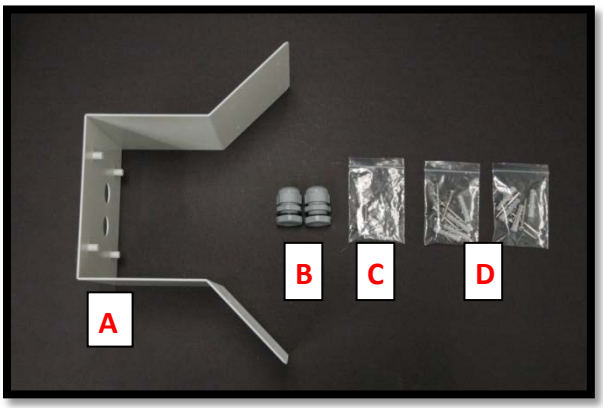

Image 33

1. Remove the corner mount adapter, compression fitting and hardware from the box.

2. Install compression fittings to corner mount adapter as shown in **Image 34**.

3. Attach wall mount adapter to corner mount adapter and attach the wall mount cap as shown in **Image 36**.

Image 34

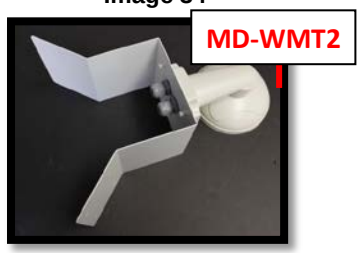

Image 35

4. Run the Ethernet cable and outside power cable (if necessary) through the compression fittings and MegaDome® Wall Mount, MD-WMT2.

5. Using the screws provided (or other hardware) attach the Corner Mount Adapter to an exterior 90° corner wall.

6. Attach the dome to the wall Mount Adapter. Please reference "**Mounting the Camera,**" if needed.

7. Tighten the compression fittings to seal the wiring holes.

Heater Kit MD2-HK Installation Instructions

(Accessory Sold Separately, except –H Models)

Inside the box:

A. Heater
B. Two (2) plastic stand-offs
C. Two (2) screws

Not included but needed:

- #1 Phillips head screwdriver

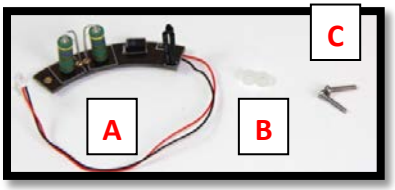

Image 36

1. Remove the heater kit from the box.

2. Connect the heater cable to the connector on PCB as shown in **Image 38**. Red is positive (+) cable.

   NOTE 1: MegaDome® 2 Heater, MD2-HK, uses 2.28 watts which is different from the MegaDome® Heater. (MD-1HK is 10 watts)

   NOTE 2: Unlike the MegaDome® Heater (MD-1HK), MegaDome® 2 Heater (MD2-HK) doesn't need external power input.

3. With the heater element protruding out of the camera, align the two (2) holes on the heater board with the two holes on gimbal base shown in **Image 37**.

4. Screw the heater board with the standoff on gimbal base as shown in **Image 38**.

Image 37

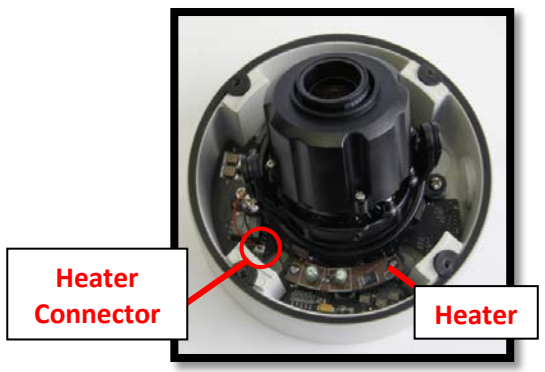

Image 38

MegaDome® 2 I/O Cable Connection

Inside the box:

A. I/O Cable

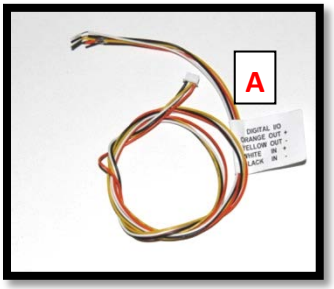

Image 39

Not included but needed:

- Flat head screwdriver

1. To use the I/O ports of the MegaDome®, run the I/O cable through the hole in the bottom of the camera and plug it into the connector as shown in **Image 40**. *NOTE: The connection is a little stiff so be sure to apply enough pressure to connect it; using a flat head screw driver to push it in is recommended.*

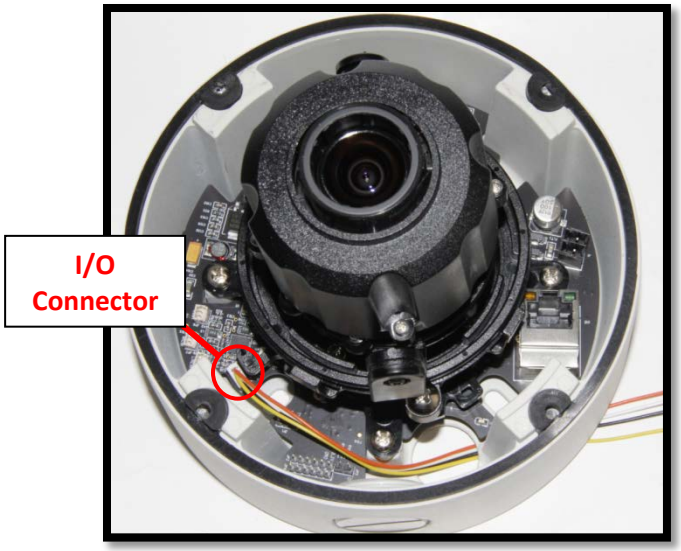

Image 40

NOTE: Both the input and the output are electrically isolated from the rest of the camera's electrical circuitry via general-purpose photo couplers. The input is additionally protected with a serial 250 Ohm resistor and a debouncing circuit. Duration of any input signal should be at least 5ms to comply with the requirements of the debouncing circuit.

Electrical Characteristics:		**Min**	**Max**
Input voltage (V) (measured between + and – terminals)	ON	2.9	6.3
	OFF	0	1.3
Output current (mA) (measured between + and – terminals) Applied Voltage Rage: 0 - 80V	ON	-	50
	OFF	-	0.1

Table 1

Orange	OUT +
Yellow	OUT –
White	IN +
Black	IN -

Table 2

MegaDome® 2 Audio Cable Connection (-A Models only)

Inside the box:

A. Three (3) 3.5mm mono in-line jacks

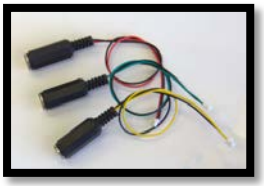

Image 41

Not included but needed:

B. Flat head screwdriver
C. Microphone, line-in Device, or speaker

1. Run the audio cable connection jack cables through the hole in the bottom of the camera and connect them to the connectors on the circuit board as shown in **Image 42**.

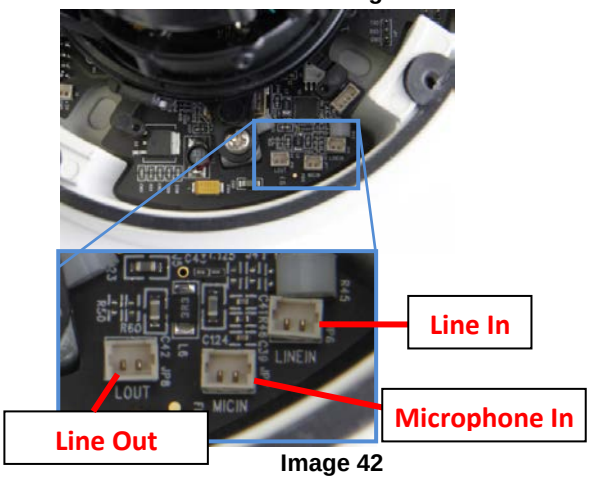

Image 42

2. Connect a mono analog microphone to **MICIN** (**Microphone In),** connect the line-in signal to **LINEIN** (**Line In),** connect an active speaker with a built-in amplifier to **LOUT** (**Line Out)** via the in-line jack as shown in **Image 43**, if needed.

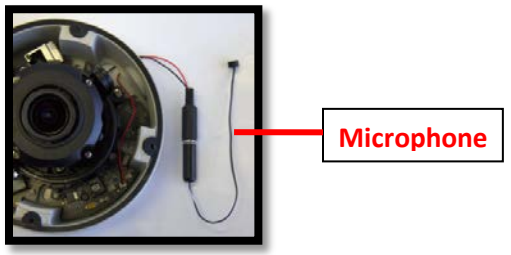

Image 43

3. Enable audio on the MegaDome® 2 Camera Web interface as shown in **Image 44**.

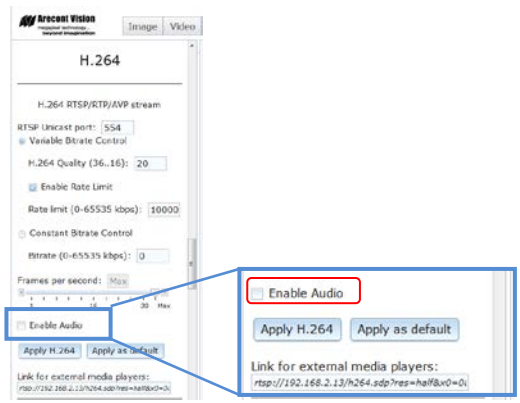

Image 44

NOTE: Audio only works in H.264 RTP/UDP streaming.

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